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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,478	02/24/2005	Jerry Leroy Adams	P51281	3279

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EXAMINER	
BERCH, MARK L	

ART UNIT	PAPER NUMBER
1624	

DATE MAILED: 01/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/525,478	ADAMS ET AL.	
	Examiner	Art Unit	
	Mark L. Berch	1624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 11-26* is/are rejected.

7)☐ Claim(s) *10* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2/24/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-9(part), 10, 11-25(part), drawn to Y=C .

Group II, claim(s) 1-9(part), 11-25(part), drawn to Y=N.

The inventions listed as Groups I=II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The special technical feature is the heterocyclic core. Group I is drawn to pyrrolopyrimidines' Group II is drawn to purines. It is the core which is responsible for the pharmacological activity. These are structurally dissimilar as the cores differ in the number of heteroatoms present.

During a telephone conversation with Steven Tianer on 1/11/2006 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-9(part), 10, 11-25(part). Affirmation of this election must be made by applicant in replying to this Office action. Claim (none) are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim

remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claims 1-9 and 11-25 are rejected as being drawn to an improper markush group, for reasons set forth in the above requirement for restriction. Removal of the Y=N option will overcome this rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 14 and 18-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hitchings.

See column 5, compound 43. This corresponds to X=bond, R3=phenyl, R1=nonyl, R2=H. The sole difference is that the claimed compounds have R2=methyl whereas the prior art has H. However, the additional of a methyl group to an old compound simply constitutes a homolog. Such a variation is considered obvious because of the close structural similarity. See *In re Hoeksema*, 154 USPQ 169; *Ex parte Weston*, 121 USPQ 428; *Ex parte Bluestone*, 135 USPQ 199; *In re Doebel*, 174 USPQ 158. As was stated directly in THE GENERAL TIRE & RUBBER COMPANY v. JEFFERSON CHEMICAL COMPANY, INC., 182 USPQ 70 (1974): "If any structural change is obvious to one skilled in the art, a substitution of the next higher homolog would seem to be." Note also *In re Jones*, 21

USPQ2d 1942, which states at 1943 "Particular types or categories of structural similarity without more, have, in past cases, given rise to *prima facie* obviousness"; one of those listed is "adjacent homologues and structural isomers". Similar is *In re Schechter and LaForge*, 98 USPQ 144, 150, which states "a novel useful chemical compound which is homologous or isomeric with compounds of the prior art is unpatentable unless it possesses some unobvious or unexpected beneficial property not possessed by the prior art compounds." Note also *In re Deuel* 34 USPQ2d 1210, 1214 which states, "Structural relationships may provide the requisite motivation or suggestion to modify known compounds to obtain new compounds. For example, a prior art compound may suggest its homologs because homologs often have similar properties and therefore chemists of ordinary skill would ordinarily contemplate making them to try to obtain compounds with improved properties."

Claims 14-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Castelhano US 2002/0058667.

See species at paragraphs 239-245. This corresponds to X=bond, R3=optionally substituted phenyl or pyridyl, R1=substituted cycloalkyl, R2=H. The sole difference is that the claimed compounds have R2=methyl whereas the prior art has H. However, the additional of a methyl group to an old compound simply constitutes a homolog. Such compounds are considered prima facie obvious, owing to the extremely close structure, for reasons set forth above. The same is true for the structures as 253-256, except for the fact that these have R1 as optionally substituted alkyl. Compounds 800 and 803-807 on page 52-53 and 900-903 on page 54, which correspond to X=bond, R3=optionally substituted phenyl or furyl, R1=substituted cycloalkyl or optionally substituted alkyl, R2=methyl or aralkyl. These differ only by having two extra methyl groups on the pyrrole ring, again a

homolog for reasons set forth above. Note that species 902 meets the optionally substituted aminoalkyl requirement of claim 15, since compound 902 has an aminoalkyl substituted by an acetyl group. With regard to claim 25, rheumatoid arthritis and osteoarthritis are both listed in paragraph 0046.

Claims 14-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over West.

See the last compound in each of tables 3 and 4. These correspond to X=bond, R3=phenyl, R1=benzyl or ethyl, R2=H. The sole difference is that the claimed compounds have R2=methyl whereas the prior art has H. The same reasoning applies.

Claims 14-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hess.

See Compounds 31, 41-45, or 9-17, on pages 4638 and 4640, which correspond to X=bond, R3=optionally substituted phenyl, or heteroaryl, R1= H, cycloalkyl or substituted alkyl, R2= phenyl, heteroaryl or aralkyl. These differ only by having two extra methyl groups on the pyrrole ring, again a homolog for reasons set forth above. The "cerebroprotective" language in the last full sentence on page 4636 would encompass e.g. claim 25 "closed head injury".

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-9, 11-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1. **Optionally substituted with what?**
2. **In claim 26, what is an "activated carbonate equivalent"?**
3. **The term "CSBP/RK/p38" is unclear. Aren't CSBP and RK the same thing?**
4. **The scope of claims 12 and 24 is unclear. There is no way to be sure which disease are and which diseases are not covered by this claim language. This is because the full role of CSBP in the body is not known. See figure 1 in the specification, and note that some of the items there, especially α-TNF, COX2 and IL-1 are involved, or suspected of being involved, in dozens of disorders**
5. **X as N is impossible. N is trivalent; but the formula calls for a divalent variable.**
6. **In claims 13 and 25, sunburn is not a disease.**
7. **The term "Diabetes" is ambiguous. It is not a complete term. Diabetes insipidus for example is caused by the inability of the kidneys to conserve water, which is caused by a lack of ADH (central diabetes insipidus) or by failure of the kidneys to respond to ADH (nephrogenic diabetes insipidus). Applicants must select some specific form(s) of diabetes (e.g. Type 2 diabetes mellitus, or Gestational diabetes mellitus; these are metabolic disorders) and they must use that term, and show that one of ordinary skill in the art would have been able to determine that whatever term(s) is/are selected was the one(s) intended.**

8. Claim 26 is miswritten. The reaction as stated will not give the compound of Formula I, as Formula I requires an extra amine, but none of these reagents contain N in the first place.

Claims 12, 13, 24, 25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Pursuant to *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988), one considers the following factors to determine whether undue experimentation is required: (A) The breadth of the claims; (B) The nature of the invention; (C) The state of the prior art; (D) The level of one of ordinary skill; (E) The level of predictability in the art; (F) The amount of direction provided by the inventor; (G) The existence of working examples; and (H) The quantity of experimentation needed to make or use the invention based on the content of the disclosure. Some experimentation is not fatal; the issue is whether the amount of experimentation is "undue"; see *In re Vaeck*, 20 USPQ2d 1438, 1444.
The analysis is as follows:

(1) Breadth of claims.

(a) Scope of the compounds. Owing io the broad scope of the three primary variables, billions of compounds are embraced.

(b) Scope of the diseases covered. The diseases are very broadly set forth. Along with numerous and very diverse individual disorders, note the following broad categories:

I. The term "arthritis" is used for any kind of inflammation of the joints arising from a wide diversity of causes and mediators, many of which are unknown. It mostly commonly refers to any of osteoarthritis, gouty arthritis, or rheumatoid arthritis. These are three totally different and unrelated disorders, which all have "arthritis" in their name and involve inflammation of the joints. Rheumatoid arthritis is an inflammatory disorder causing destruction of articular cartilage, in which macrophages accumulate in the rheumatoid synovial membrane. Mediators are cytokines, including IL-1, IL-18, α-TNF and IFN-K. It is thus an autoimmune condition where the body's immune system attacks its joints. In gouty arthritis, joint inflammation is caused by the formation of monosodium urate monohydrate (MSU) crystals within the joint space. Osteoarthritis is a degenerative cartilage disorder; cartilage breakdown causes bones to rub against each other. Causes include injuries, diseases such as Paget's disease, and long term obesity, but often the cause is unknown, and the full mechanism has not been discovered. Complicating matters further is that fibromyalgia is sometimes also intended to be included in the loose term "arthritis". There is also Psoriatic Arthritis (including DIP, and spondylitis) which is believed to be autoimmune in origin but is a separate disorder from RA. There are also an assortment of infectious arthritis, i.e. arthritis caused by bacteria, rickettsiae, mycoplasmas, viruses (or vaccinations given to prevent viral infections), fungi, or parasites. Included in this category are various types of septic arthritis and mycotic arthritis, and viral arthritis, such as rubella arthritis, Lyme arthritis, Mumps arthritis, arboviral arthritis, syphilitic arthritis, parvovirus arthritis, tuberculous arthritis, Varicella arthritis, gonococcal arthritis, rubella arthritis, Reiter's syndrome (which includes a form of arthritis commonly arising from infection by Chlamydia trachomatis) etc. These assorted

disorders can arise from quite varied sources. Thus, in addition to the above, CPDD, sometimes called pseudoosteoarthritis, or pseudogout, arises from Calcium Pyrophosphate Deposition. Menopausal arthritis is due to ovarian hormonal deficiency. Neuropathic arthritis (which comes in several forms, such as Charcot's disease) can arise from sources as diverse as Diabetes Mellitus, Steroid treatment, Leprosy, Chronic alcoholism, Heavy metal poisoning and Neoplastic peripheral neuropathy. Arthritis can also arise from injury to the supporting ligaments or other structures contained within or associated with the joint, a condition often called post-traumatic arthritis. These various forms of arthritis are so diverse that no one form can be considered as representative of "arthritis" as a whole.
II. Neurodegnerative disease covers a broad array of different disorders that have different modes of action and different origins. The term covers such diverse disorders as Alzheimer's Disease; Parkinson's Disease; ALS and variants such as forms of ALS-PDC; dementia of the frontal lobe type (DFT) and DFT with motor neuron disease (DFT-MND); Diffuse Lewy Body Disease; Cortical Lewy body disease; Hallervordon-Spatz disease; Senile dementia of the neurofibrillary tangle type ("tangle-only dementia"); progressive familiar myoclonic epilepsy; Corticodentatonigral degeneration; more than a dozen dementias collectively called "frontotemporal dementia" (FTD); Tourette's syndrome; Shy-Drager syndrome; Friedrich's ataxia and other spinocerebellar degenerations; Olivopontocerebellar atrophy (OPCA); spasmotic torticollis; Striatonigral degeneration; various types of torsion dystonia; certain spinal muscular atrophies, such as Werdnig-Hoffmann and Wohlfart-Kugelberg-Welander; Hereditary spastic paraplegia, Primary lateral sclerosis; peroneal muscular atrophy (Charcot-Marie-Tooth); Hypertrophic interstitial polyneuropathy (Dejerine-Sottas); ophthalmic disorders such as primary open-angle glaucoma (POAG) and

retinitis pigmentosa; Leber's Disease; Wallerian degeneration, assorted prion diseases, and Hypertrophic interstitial polyneuropathy. There is a group of Prion diseases, notably Creutzfeldt-Jakob Disease (CJD), which occurs in both sporadic and familial forms; Gerstmann-Straussler-Scheinker Disease (GSS); and fatal familial insomnia. There is another group called the Taupathy diseases, which includes Pick's disease; cortical-basal ganglionic degeneration (CBGD or CBD); progressive supranuclear palsy (PSP); Parkinsonism-dementia complex(PDC), and the amyotrophic lateral sclerosis/Parkinsonism-dementia complex(ALS-PDC). Another group is the Polyglutamine diseases: Huntington's disease; spinal-bulbar muscular atrophy (Kennedy's disease or SBMA), Dentatorubral-Pallidoluysian Atrophy (DRPLA), Machado-Joseph disease (MJD, also called spinocerebellar ataxia type 3), and the other SCA diseases, viz SCA-1, SCA-2, SCA-6, and SCA-7.

These exhibit a very broad range of effects and origins. For example, some give no dementia and affect only vision, such as POAG. Some give progressive dementia without other prominent neurological signs, such as Alzheimer's Disease, whereas other dementias do have such signs, such as Diffuse Lewy Body Disease. Many give distinctive and different patterns of effect. For example, FTDs, which have bilateral atrophy of the frontal and anterior temporal lobes, produce progressive nonfluent aphasia and semantic dementia, but, in contrast to e.g. Alzheimer's Disease, visuospatial skills and day-to-day memorizing is largely unaffected. Some give muscular wasting without sensory changes, e.g. ALS, and some do have the sensory changes such as Werdnig-Hoffmann. Some affect only vision such as retinitis pigmentosa, while others affect both vision and cognitive functions, such as Posterior cortical atrophy (PCA). Some are abnormalities of posture,

movement or speech, such as Striatonigral degeneration, and other are progressive ataxias, such as OPCA. Some give an extremely broad range of effects. For example, CBD can give apraxia, alien limb phenomenon, cortical sensory loss, aphasia, myoclonus, bradykinesia, rigidity, dystonia, tremor, memory impairment and/or personality/behavioral changes.

The toxic protein involved also varies. In some cases it is tau, especially Alzheimer's Disease and Taupathy, and some are so linked to tau only sometimes (FTD). Alzheimer's Disease also involves β-amyloid. For Parkinson's disease it is α-synuclein, while ALS is linked to SOD1. Prion disease involves PrP^{Sc} as its toxic protein, which involves missense. The polyglutamine diseases involve polyglutamine containing proteins. For Huntington's disease, it is huntingtin, for SBMA it is an androgen receptor, for DRPLA it is atrophin, for SCA-1 it is Ataxin-1, for SCA-2 it is Ataxin-2, for SCA-3 it is Ataxin-3, for SCA-6 it is calcium channel protein, and for SCA-7 it is Ataxin-7.

The nature of the protein deposits varies as well. In Alzheimer's Disease, there are extracellular plaques from β-amyloid and neurofibrillary tangles (from tau). In Parkinson's disease it is Lewy bodies and in ALS it is Bunina bodies. Taupathy produces cytoplasmic tangles, and Polyglutamine disease produce neuropil aggregates, intranuclear inclusions and cytoplasmic tangles. Prion disease produces prion plaque. And note that the disease form is not necessarily related to the protein deposits. For example, Alzheimer's Disease and Pick's disease both give progressive dementia without other prominent neurological signs. But the characteristic Alzheimer's neurofibrillary tangles are not seen in Pick's Disease, which has straight fibrils, as opposed to the paired helical filaments of Alzheimer's Disease. Pick's Disease gives lobal atrophy, not seen in Alzheimer's Disease.

The disease genes vary considerably as well. In Alzheimer's Disease, there is toxic gain of function with APP and loss of function of Presenilin 1 and presenilin 2. With Parkinson's disease, there is toxic gain of function with α-synuclein, and loss of function of Parkin and UCHL1. In the Polyglutamine diseases, there is toxic gain of function with 9 different genes with CAG repeat expansion. In Prion disease, there is toxic gain of function with PRNP. In ALS there is toxic gain of function with SOD1. FTDP-17 arises from mutations at chromosome 17, Huntington's Disease from chromosome 4, and the neurodegenerative disorder that people with Down's syndrome develop later in life is presumably connected in some way to chromosome 21.

III. Restenosis, or recurrent stenosis, is an extremely general term. Stenosis is the narrowing of any canal, orifice, valve, duct, artery, vein, tube (such as trachea), opening, etc. in the body. These can arise from obstructive lesions, deposits of granulations, organ hypertrophy, etc. There is no such thing as being able to treat such widely diverse problems which arise from different sources.

IV. "Neurotrauma/closed head injury" would cover any kind of trama to the nerves anywhere in the body, and any sort of head injury which does not actually open the head, ranging from concussion to stroke.

V. "Angiogenic disease" would cover any disease in which there was too little or too much angiogenesis. In the former category, since angiogenesis is required during the proliferative phase of wound healing, it would also cover skin diseases with insufficient angiogenesis, e.g. nonhealing skin ulcers and other delayed wound healings, including diabetic, venous stasis, and pressure ulcers, which are characterized by inadequate wound granulation. Insufficient angiogenesis also occurs in diseases such as systemic sclerosis (scleroderma),

certain forms of infertility (especially blastocyst implantation failure and polycystic ovary syndrome), certain ocular diseases, coronary artery disease, and stroke. In the latter category, this covers not only cancer, but some neurodegeneration diseases, respiratory distress in the premature infant, psoriasis and rheumatoid arthritis, diabetic retinopathy, some failures of wound repair, atherosclerosis and macular degeneration and many other disorders.

VI. Tumor growth and metastasis. This covers all forms of cancer except the leukemias.

VII. Diabetes covers an assortment of not necessarily related disorders, including central diabetes insipidus, nephrogenic diabetes insipidus, Type 1 and Type 2 diabetes mellitus, and Gestational diabetes mellitus.

VIII. As noted in point 4 above, the scope of claims 12 and 24 is unknown.

(2) The nature of the invention and predictability in the art: The invention is directed toward medicine and is therefore physiological in nature. It is well established that "the scope of enablement varies inversely with the degree of unpredictability of the factors involved," and physiological activity is generally considered to be an unpredictable factor. See *In re Fisher*, 427 F.2d 833, 839, 166 USPQ 18, 24 (CCPA 1970).

(3) Direction or Guidance: That provided is very limited. The dosage range information given on page 27 is generic, the same for the many disorders covered by the specification. Thus, there is no specific direction or guidance regarding a regimen or dosage effective specifically for this or that disorder.

(4) State of the Prior Art: These compounds are pyrrolopyridin-4 amines, with a particular substitution patter at two positions. So far as the examiner is aware, no pyrrolopyridin-4

amines of any kind have been used for the treatment of arthritis, neurodegenerative disorders, diabetes, etc..

(5) Working Examples: There are none. No biological data of any kind is provided.

(6) Skill of those in the art: This varies according to the area. In terms of the skill on the art of using P38 inhibitors for arthritis, that is very low. No p38 inhibitor has ever been made to work for any form of arthritis. VX-745, and RPR200765A were studied for RA, but ultimately this work resulted in failure. Some disorders on the list are considered untreatable per se, e.g. ARDS and septic shock. The vast majority of neurodegenerative disorders cannot be treated with drugs, and the very few that can be, e.g. Alzheimer's Disease, are not treated with p38 inhibitors. Treatment of cancer in general is not possible; the majority of forms of cancers do not respond to chemotherapy. Cerebral malaria can only be treated with anti-infective agents.

(7) The quantity of experimentation needed: In view of points 1, 4, 5, and 6, this is expected to be very high

MPEP 2164.01(a) states, "A conclusion of lack of enablement means that, based on the evidence regarding each of the above factors, the specification, at the time the application was filed, would not have taught one skilled in the art how to make and/or use the full scope of the claimed invention without undue experimentation. *In re Wright*, 999 F.2d 1557,1562, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993)." That conclusion is clearly justified here.

Specification

The abstract is objected to as too vague. It is suggested that applicants use Formula I and Formula II, along with definitions for Y, X and R2, and R3.

Claim Objections

Claim 26 is objected to under 37 CFR 1.75(c) as being in improper form because a dependent claim cannot depend on more than one claim. See MPEP § 608.01(n).

Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark L. Berch whose telephone number is 571-272-0663. The examiner can normally be reached on M-F 7:15 - 3:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson can be reached on (571)272-0661. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mark L. Berch
Primary Examiner
Art Unit 1624

1/13/06